

1978-6027

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 1978 to 6027

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *51* *1978*
 Date, *Nov 4 - 98*
 Time of day, *11.22 AM*, *Commencing abt.*
 Locality, *In Letcombe river*
 Exact position, *Bury nob. O.D.E.*
50 yds north
 Depth, *5 1/4 fathoms*
 Nature of bottom, *Rocky, gravelly*
 Dredging instrument used, *7 ft beam trawl*
 Direction of drift, *N.W.E.*; distance, *1/2 mile*
 Temperature of air, *61° Fah* therm. No., *7397*
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, ~~*1.022*~~
 Density at surface, *1.022* temp., *11.8*
 " at depth of fathoms, "
 " at bottom, *1.022* .. *11.2*
 Number of salinometer, *7104*
 Barometer reading, *30.47*
 State of sky, *Blue*
 Direction of wind, *N.*; force, *2*
 Rain, *no*
 Direction of surface current, *0*; force, *0*
 " of bottom " : force,
 Name of vessel, *U.S.F.C. S. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *W. H. Sampson, Lt. Comdr.*
 Name and position of observer, *H. M. Morgan*

- 1 Skale - Ermacia
 ~ Murex fluminea
 1 window pane "
 Microdonia fuscipes
 1 young sea urchin
 Hybrid in front plentiful
 Cr.
 1 Blue crab
 small Anur. irritata few
 Littorina few.
 E. pallidus several
 Longicarpus
 Anomia - several
 Few Felis nutica
 Crapida fornicata numerous
 plana - common
 Bryozoa plentiful
 Dead shells of cycloturus
 Fulgur, Venus, Mytilus.
 Anura, Myxina, Capridula
 Anomia, L. heros, Littorina
 Few dead Hali eggs
 Few terebrators
 Lepidodermis, Panopaea
 Balanus, Hydrotia
 Pseudosquilla

Trawler was hauled in from
3 1/2 to 9 1/2 fathoms

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 52 - 1979
Date. Nov 4 - 98
Time of day. 11.50 am; of tide, 1/2 hour of ebb.
Locality. In Sound near
Exact position. Buoy no 8 300 yards
N x N of fort
Depth. 4 fathoms
Nature of bottom. Same as before
Dredging instrument used. 7 foot beam trawl
Direction of drift, N. N. E; distance, 5/8 mile
Temperature of air, 61° therm. No., 7397
" of surface water, "
" at depth of fathoms, "
" at bottom, "
Density at surface. 1.022 temp., 11.5°
" at depth of fathoms, "
" at bottom. 1.022 " 12°
Number of salinometer, 7104
Barometer reading. 30.45
State of sky. Blue
Direction of wind, S; force, 2
Rain. No
Direction of surface current, no perceptible
" of bottom " : force,
Name of vessel, U.S.F.C.S. Fish Hawk
Service to which attached, Fish Commission
Name and rank of commanding officer, Lt. Comdr
R. G. Swenson, USNavy
Name and position of observer, J. M. Williams
Thermometer No. 7397

NOTES RELATING TO STATION NO.

52 ✓

Practically the same as 51
with addition of 2 large anemones
1 egg string of Sybtyllus
Like hydroid.
2 large 7 in stars. Forks.
Ceanothus
Mulinia
Euscalpina
Pannopora

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 53 1980
 Date, Nov. 27 1880
 Time of day, 7.30 pm: of tide, 3 hours 4 abt
 Locality, Narragansett Bay?
 Exact position, Outer Island Light
 N.E. x N. 7.5 4 mile
 Depth, 7 fathoms
 Nature of bottom, Muddy bar
 Dredging instrument used, 7 foot beam trawl
 Direction of drift, S. 2/4 E.; distance, 5/8 mile
 Temperature of air, 56° 74° therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.021 + temp., 13.7°
 " at depth of fathoms, " "
 " at bottom, 1.022 + 13.8°
 Number of salinometer, 7104
 Barometer reading, 30.40
 State of sky, Blue
 Direction of wind, S.W.; force, 3
 Rain, No
 Direction of surface current, S.W. 1/4 E.; force, 1 knot
 " of bottom " " force, "
 Name of vessel, U.S.F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr.
 R. H. Sawrey, U.S.N.
 Name and position of observer, J. M. McIlhenny
 J. M. McIlhenny, U.S.N.

About 10 bushel of very little.
 large Cancer irrorata. beautiful
 Miller flounder few
 4 Lake Squinell
 Skate - Erinnacea. few.
 1 Window-pane
 1 P. Carolina
 1 Arbacia (much)
 a bushel very large Stars & in. Fishes
 The usual fauna of the mussel bed
 Lepidomolus, Pectoporus.
 Pinnothera, a few dead shells
 Callista conruga, 1 blue crab.
 Beautiful cancer irroratus, mottled
 Plais very broad, full & fat
 By cotypes

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 54 - 1981
 Date. Nov. 4 - 98
 Time of day, 2:50 : of tide, 3/4 h. of ebb
 Locality, Narragansett Bay
 Exact position, Dutch Island
 N x E 1/2 E. 1.87 miles N.W.
 Depth, 7 1/4 fathoms.
 Nature of bottom, Rck. & s. s.
 Dredging instrument used, 7 foot beam trawl
 Direction of drift, S. 3/4 W. : distance, 1/2 mile
 Temperature of air, 56 Fahr. therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.021 + temp., 12.8°
 " at depth of fathoms, "
 " at bottom, 1.022 .. 13.7°
 Number of salinometer, 7104
 Barometer reading, 30.40
 State of sky, Blue - hazy
 Direction of wind, S.W. : force, 3
 Rain, No
 Direction of surface current, Drift : force, 1/2 mi
 " of bottom " : force,
 Name of vessel, U.S.F.C. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr.
 R.H. Davenport, U.S.N.
 Name and position of observer, J.W. Miller
 J.W. Miller

- 1 Sculpin
 1 Skate - Euryacea
 Several small fish
 Few small flounders.
 * bushy mussels & shells.
 Quantity of kelp.
 Lepidosteus
 Capricornia plana & fornicata
~~Callinectes~~
 1 young sea robin
 Callista convexa, dead shell
 1 blue crab
 100 young innotatus.
 1 young " brevis.
 1 Idotea innotata
 10 Large flats 20 g in
 1 purple " (?)
 1 green sea anemone
 Rev. Syngnathus, common
 young Buccinum
 1 Longicarpus
 Gammarus tonsa
 young skate squint
 Parapenaeus
 Bryozoa
 Obelia
 Laminaria, by now in same
 underbranch (p.?) Gammarus.
 Spirobia, few small pieces ammocete
 clum

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *55 - 1982*
 Date, *Nov 4 - 98*
 Time of day, *3.15 pm* : of tide, *4 hours of ebb*
 Locality, *Namafanall Bay*
 Exact position, *Beach Tail light*
D. E x E 1/4 E 7.67 y north mag
 Depth, *9 1/2 fathoms*
 Nature of bottom, *Sandy*
 Dredging instrument used, *7 foot beam Trawl*
 Direction of drift, *0.8 N. W.* : distance, *3/8 mile*
 Temperature of air, *55° Fahr* therm. No., *7397*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.022* temp., *13.6°*
 " at depth of fathoms, " "
 " at bottom, *1.023* " *14°*
 Number of salinometer, *7104*
 Barometer reading, *30.40*
 State of sky, *Blue, hazy*
 Direction of wind, *0. W.* : force, *3*
 Rain, *no*
 Direction of surface current, *N. W.* : force, *1 knot*
 " of bottom " : force, "
 Name of vessel, *U. S. S. C. S. Fish Hawk*
 Service to which attached, *1st Commission*
 Name and rank of commanding officer, *St. Paul*
R. E. ...
 Name and position of observer, *W. J. ...*
Thomson ...

NOTES RELATING TO STATION NO. 55

- Several large squid
- 3 skate: *Limacia* - 1 doubtful
- a few young *Cancer* bottom
- ... *Quadrus* ...
- a young med. sized empty sea clam
- ... by shells
- 1 *Mytilus* ...
- ...
- 1 *Rea* ...
- Palaemonetes*
- E. Bernhardtii*
- Agrotis* ...
- Chrysomelids* ...
- Lot of ...
- 1 *...* ...
- Few crabs
- Idotea* ...
- ...* ...
- 1 pipe ...
- E. ...*
- 1 *...*
- E. Anallipes*
- E. ...*
- Turbo* ...
- 1 mudcrab

No other fish

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 6 - 1983Date. Nov. 4 1898Time of day. 3.45 : of tide. nearlyLocality. Narragansett BayExact position. Beach South LightDepth. 14³ 4 fathomsNature of bottom. Sandy mudDredging instrument used. 12 ft beam trawlDirection of drift. P. W. ; distance. 3/4 mileTemperature of air. 53°therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface. 1.022temp., 13°

" at depth of fathoms, "

" at bottom. 1.022Number of salinometer. 7104Barometer reading. 30.48State of sky. Partly cloudyDirection of wind. P. W. : force. 3Rain. NoDirection of surface current. P. W. : force. 3/4 knots

" of bottom " : force "

Name of vessel. U. S. Fish Comm. Fish HawkService to which attached. Fish Comm.Name and rank of commanding officer. A. S. Richmond, Lt. Comdr.Name and position of observer. W. H. Coker

NOTES RELATING TO STATION NO. 56

- 1 Silver hake (P.)
- Shale - 50 ft. deep
- 16 Spindle
- 16 Brown - flint
- 2-4 spot
- flint - 1/2 in. x 1/2 in.
- flint - 1/2 in. x 1/2 in.
- flint - 1/2 in. x 1/2 in.
- Two dead shells, 1 in. x 1/2 in.
- cyprine - 1/2 in. x 1/2 in.
- cyprine - 1/2 in. x 1/2 in.
- cyprine - 1/2 in. x 1/2 in.
- cyprine - 1/2 in. x 1/2 in.
- cyprine - 1/2 in. x 1/2 in.
- 3 Stone fish - 1 1/2 in. x 1/2 in.
- About 50 - 100 ft. x 1/2 in. x 1/2 in.
- 2 or 3 purple stone, 1/2 in. x 1/2 in.
- about 1/2 in. x 1/2 in.
- about 1/2 in. x 1/2 in.

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *57 - 1984*
 Date, *Nov 4 - 1898*
 Time of day, *4:30 pm*: of tide.
 Locality, *Narragansett Bay*
 Exact position, *Cattle Neck Light*
E 1/2 N. 87 mile mark
 Depth, *17 1/2 fathoms*
 Nature of bottom, *fine sand & mud*
 Dredging instrument used, *7 foot beam trawl*
 Direction of drift, *S. by E. 3/4 mile*: distance.
 Temperature of air, *51* therm. No., *7397*
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0214* temp., *12.5°*
 " at depth of fathoms, "
 " at bottom, *1.023* *13°*
 Number of salinometer, *7114*
 Barometer reading, *30.1*
 State of sky, *Blue haze*
 Direction of wind, *S. by E.*: force, *3*
 Rain, *No*
 Direction of surface current, *0*: force, *0*
 " of bottom " : force, "
 Name of vessel, *U.S.F.C. Fish Hawk*
 Service to which attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *Ensign*
R. B. Brown, Jr., Master
 Name and position of observer, *J. B. Hargan*
Physician

NOTES RELATING TO STATION NO.

32 skali

personal counseling

2000

for 1000

7/11/94

140

From 5:30 to 6:00 pm by

3/2/74

L. humilis L.

1-~~two~~, cyferonau i ddwy ben

a full day

Post shell River

C. edgewisei Littorina littorea

1-3 in. diam. - 100 ft. -

1 - 5th in flight.

[Faint handwritten notes at the bottom of the page]

1-2, 154 minutes.

Longicarpus communis
shell, perisperm layer -

Artista in Italia

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *58 - 1525*
 Date, *Nov. 9th 1898*
 Time of day, *11.10 am*; of tide, *1st h. of ebb*
 Locality, *Mt Hope Bay*
 Exact position, *Side of bay, N. by E. 2.25 mag.*
 Depth, *4 fathoms*
 Nature of bottom, *Mudgy*
 Dredging instrument used, *dredge*
 Direction of drift, *N. x W*; distance, *5/8 mile*
 Temperature of air, *58° Fahr* therm. No., *737*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.019* temp., *11.2°*
 " at depth of fathoms, " "
 " at bottom, *1.017* *Surface 70.49 17.7°*
 Number of salinometer, *Bottom 71.0*
 Barometer reading, *30 - 28*
 State of sky, *Cloudy - haze*
 Direction of wind, *Calm*; force, *0*
 Rain, *0*
 Direction of surface current, : force,
 " of bottom " : force,
 Name of vessel, *U.S. Fish Com. Fish Hawk*
 Service to which attached, *U.S. Fish Com.*
 Name and rank of commanding officer, *St. George*
R. B. Thompson, Master
 Name and position of observer, *J. H. Thompson*
Thompson's diary

NOTES RELATING TO STATION NO. 58

Antyus sp.
Eupodichis longicauda sp.
Cleidopoma, like *sp.*
Eupodichis, but not *sp.*
sp. - *sp.*
sp. - *sp.*
Panopaea
Libinia
sp. - *sp.* *sp.* *sp.*
Gammarus sp.
Polydora - *sp.*
Murchiea -
Murchiea
Callinectes - *sp.*
Thracia
sp.
Pyrosoma - *sp.*
Nummulus - *sp.*
Gastrea
Gastrea sp.
Nereis
Shell - *sp.*

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *59*Date. *Nov 9th 1908*Time of day, *11:35* : of tide. *1 1/2 h. of flood*Locality, *MT Hope*Exact position, *Pointe-aux-Lacs*Depth, *1 1/4*Nature of bottom, *Muddy with gravel*Dredging instrument used, *7 foot beam trawl*Direction of drift, *N. x E. 1/2 E.* : distance, *1/4 mile*Temperature of air, *60° F.*therm. No., *7397*

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, *1.019*temp. *11.5*

" at depth of fathoms, "

" at bottom, *1.021*Number of salinometer, *7049*Barometer reading, *30.47*State of sky, *Blue Cloudy*Direction of wind, *S. W.* ; force, *1*Rain, *no*

Direction of surface current, : force,

" of bottom " : force,

Name of vessel, *U. S. Fish Com. Steamer*Service to which attached, *U. S. Fish Com.*Name and rank of commanding officer, *Jr. Comdr*Name and position of observer, *J. H. McGee*

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No.

60 1957

Date,

Nov. 9th, 1957

Time of day,

11.55 ; of tide, 2 h. 15 min. after

Locality,

Mt. Hope Bay

Exact position,

1 mile from L. House

Depth,

7.5 mile away,

6 fathoms

Nature of bottom,

Mussel bed

Dredging instrument used,

7 ft beam trawl

Direction of drift,

N. by E. ; distance,

5 1/2 miles

Temperature of air,

62°

therm. No.,

7397

"

of surface water,

"

"

at depth of

fathoms,

"

"

at bottom,

"

Density at surface,

1.019

temp.,

14°

"

at depth of

fathoms,

"

at bottom,

1.020 +

10°

Number of salinometer,

7049

Barometer reading,

30.43

State of sky,

Sunny

Direction of wind,

N. by E.

; force,

1

Rain,

No

Direction of surface current,

; force,

"

of bottom

; force,

Name of vessel,

U. S. F. C. Fish Hawk

Service to which attached,

U. S. Fish Commission

Name and rank of commanding officer,

Lt. Comdr.

Name and position of observer,

R. H. Jensenport

J. H. Mallory

Lieutenant, U. S. N.

NOTES RELATING TO STATION NO. 60

8 *Balanus mystaceus*

2 *Mytilus* *edulis*

1 *Mytilus* *edulis*

+ 1 *Asterias* *leucostriata*

Leptasterias

Pyrosoma

Pyrosoma *pyrosoma*, rather

small

2 *Rhipidogaster*

Pyrosoma *pyrosoma* *pyrosoma*

Pyrosoma *pyrosoma* *pyrosoma*

Pyrosoma *pyrosoma* *pyrosoma*

Pyrosoma *pyrosoma* *pyrosoma*

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *61* *1988*
 Date, *Nov. 9 1897*
 Time of day, *5:30* : of tide, *3 1/2 h. after*
 Locality,
 Exact position,
 Depth, *14 3/4*
 Nature of bottom,
 Dredging instrument used, *Free beam trawl*
 Direction of drift, ; distance,
 Temperature of air, *60* therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.020* temp., *19.5*
 " at depth of fathoms, "
 " at bottom, *12*
 Number of Salinometer, *7102*
 Barometer reading, *30.20*
 State of sky, *Clear blue*
 Direction of wind, *N. W.* ; force, *10*
 Rain, *no*
 Direction of surface current, : force,
 " of bottom " force,
 Name of vessel, *U.S.F.C. S. S. Albatross*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *Lt. Comdr. J. H. Brown*
 Name and position of observer, *J. H. Brown*

NOTES RELATING TO STATION NO.

X

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *61* — *1989*
 Date. *Nov 9*
 Time of day. *2 pm* : of tide. *4 hrs of flood*
 Locality. *Mt. Vernon Bay*
 Exact position. *1/2 mi. from town*
N.E. x W. 50 yds. near
 Depth. *1.5 fms*
 Nature of bottom. *Sandy*
 Dredging instrument used. *Hand dredge*
 Direction of drift. *S.W. x N.* ; distance. *1/2 mile*
 Temperature of air. *62* therm. No., *7877*
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface. *1.021* temp., *11.9*
 " at depth of fathoms, "
 " at bottom. *1.021* " *13.6*
 Number of salinometer. *7102*
 Barometer reading. *30.20*
 State of sky. *Clear blue*
 Direction of wind. *N.W.* ; force. *7*
 Rain. *No*
 Direction of surface current, : force,
 " of bottom : force,
 Name of vessel. *U. S. F. C. S. Fish Hawk*
 Service to which attached. *Fish Commission*
 Name and rank of commanding officer. *Comdr*
W. L. ...
 Name and position of observer. *H. H. ...*
...

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *62-908*
 Date. *Nov 9*
 Time of day, *7 40* : of tide, *4 1/2 h. of flood*
 Locality, *Nanny-on-the-Hill Bay*
 Exact position, *1/2 mi. S. of Nanny-on-the-Hill*
N. 11 3/4 E. 1/2 S. 2.5 miles N. of
 Depth, *12 fms.*
 Nature of bottom, *fine sand*
 Dredging instrument used, *Spec. dredge*
 Direction of drift, *N. 1/2 E.* : distance, *1/2 mile*
 Temperature of air, *60* — therm. No., *7397*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.020* temp., *12*
 " at depth of fathoms, " "
 " at bottom, *1.021* " *14.1*
 Number of salinometer, *7104*
 Barometer reading, *30.9*
 State of sky, *Clear - blue - light clouds*
 Direction of wind, *W. S. W.* : force, *1/2*
 Rain, *no*
 Direction of surface current, : force,
 " of bottom " force,
 Name of vessel, *U. S. F. C. S. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *Lt. Comdr. R. C. Brewster*
 Name and position of observer, *J. H. Hargrave*
Thompson

NOTES RELATING TO STATION NO. 62

1978 Bot. no. 4266

Symphytum

Liban

W. tilus

Paul. Pers.

Chalima

Ally. Wilson

Ally. Wilson

Callisyllus

Ally.

Caulea immutata

Crabtree

Ally.

Ally.

Ally.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 63 - 1991
 Date. Nov 12 1898
 Time of day, 1:15 : of tide, low
 Locality, Between Underbridge & East Side
 Exact position, 1.57 miles away
 W. x N. $\frac{1}{4}$ N.
 Depth.
 Nature of bottom, fine
 Dredging instrument used, Dredge
 Direction of drift, N x E : distance, 1/2 mile
 Temperature of air, 58 therm. No., 75
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.025 temp., 11.4
 " at depth of fathoms, " "
 " at bottom, " "
 Number of salinometer,
 Barometer reading, 30.25
 State of sky, Blue
 Direction of wind, W ; force, 1
 Rain, No
 Direction of surface current, No perceptible
 " of bottom " : force,
 Name of vessel, H. T. F. S. S. T. S. S.
 Service to which attached, U. S. Fish Commission
 Name and rank of commanding officer, St. George
 Name and position of observer, J. H. H. H. H.
Harshaw & Co.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No.

647 - 1907

Date,

Nov. 12.

Time of day,

10.35

; of tide,

5 hours of ebb

Locality,

Mar. Schuyler's Edge

Exact position,

See notes for 1907

Depth,

11 fms

Nature of bottom,

Fine sand & shells

Dredging instrument used,

Dredge

Direction of drift,

S. by E. 1/2 E.

distance,

3/4 mile

Temperature of air,

38° Fahr.

therm. No.,

117

"

of surface water,

"

"

at depth of fathoms,

"

"

at bottom,

"

Density at surface,

1.023

temp.,

11.8° C

" at depth of

fathoms,

"

at bottom,

1.073

"

14.1° C

Number of salinometer,

7104

Barometer reading,

30.25

State of sky,

7 clear

Direction of wind,

S. by E.

; force,

1/2

Rain,

No

Direction of surface current,

No perceptible

" of bottom

force,

Name of vessel,

U. S. F. C. S. Fish Hawk

Service to which attached,

Fish Commission

Name and rank of commanding officer,

J. L. Smith

Name and position of observer,

J. H. Heflinger

Proc. Mar. Mus.

NOTES RELATING TO STATION NO. 64

March 1904
Insects collected at
Ten Mile Creek
Antelope Creek
Dietary notes
Some very good birds
A few swallows
Turtles
Some other small
1 meadow lark
1 flycatcher
1 sparrow
1 white winged
1 Ayer's
A few other birds

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *665 - 1923*
 Date. *Nov. 17 1895*
 Time of day. *11* ; of tide. *5th h. ab.*
 Locality. *Map of Schuyler River*
 Exact position. *Yeatonmett River*
N. x E. $\frac{3}{4}$ E. 75 y mile map.
 Depth, *9 x fathoms*
 Nature of bottom, *Rocky & sandy*
 Dredging instrument used, *Long*
 Direction of drift, *N x N. by N.*; distance. *$\frac{1}{2}$ mile*
 Temperature of air. *38° Fahr* therm. No., *7397*
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface. *1.023* temp., *11.3°*
 " at depth of fathoms, "
 " at bottom, *1.023 +* " *17.1°*
 Number of salinometer, *7100*
 Barometer reading. *30.23*
 State of sky. *1/4*
 Direction of wind, *N. W.*; force. *2*
 Rain. *no*
 Direction of surface current, *S x N.*; force, *1*
 " of bottom " force.
 Name of vessel, *U. S. F. C. S. Fish Hawk*
 Service to which attached, *U. S. Commission*
 Name and rank of commanding officer, *Lt. Comm. U. S. Navy*
 Name and position of observer, *W. H. C. S. Fish Hawk*
Thompson, L. H.

13261

NOTES RELATING TO STATION NO. 65-

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *66 — 1090*
 Date, *Nov, 4, 1898*
 Time of day, *11.20* ; of tide, *5 1/2 h of ebb*
 Locality, *Mouth of Sacramento River*
 Exact position, *Eastward from light*
E 1/2 N. 75 miles
 Depth, *11 1/2 fathoms*
 Nature of bottom, *Rocky*
 Dredging instrument used, *dredge*
 Direction of drift, *N. N. E.* ; distance, *3/4 mile*
 Temperature of air, *38° Fahr* ; therm. No., *7347*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, " temp., " "
 " at depth of fathoms, " "
 " at bottom, *1.023* " *11.20*
 Number of salinometer, *7100*
 Barometer reading, *30.72*
 State of sky, *blue*
 Direction of wind, *N. W.* ; force, *3*
 Rain, *no*
 Direction of surface current, *N x W* ; force, *1/8 knot*
 " of bottom " ; force, "
 Name of vessel, *U. S. Fish Hawk*
 Service to which attached, *U. S. Fish Comm.*
 Name and rank of commanding officer, *R. E. Swenson, Master*
 Name and position of observer, *J. H. Kellogg*
Professor, U. S. Fish Comm.

NOTES RELATING TO STATION NO. 66

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RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *67* *1995*
 Date, *Nov 14 1891*
 Time of day, *11 A.M.* ; of tide, *Low water*
 Locality, *Mouth of Beacomett River*
 Exact position, *Beacomett Pt. 1/2 mi. S. W. E.*
75 mbs. mag.
 Depth, *7 fms*
 Nature of bottom, *fine sand*
 Dredging instrument used, *7 ft. dredge*
 Direction of drift, *N. N. W.* ; distance, *3/4 mile*
 Temperature of air, *59° Fahr* therm. No., *7297*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.0203* temp., *59.8*
 " at depth of fathoms, " "
 " at bottom, *1.0234* " *11*
 Number of salinometer, *1500*
 Barometer reading, *30.22*
 State of sky, *B. C.*
 Direction of wind, *N. E.* ; force, *3*
 Rain, *2.00*
 Direction of surface current, *W. by S.* force, *1/2*
 " of bottom " " force, " "
 Name of vessel, *U.S. Fish Hawk*
 Service to which attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *1st Lt. D. C. Davis*
A. E. Davis, 1st Lt., U.S.N.
 Name and position of observer, *A. J. Phillips*
Chamberlain, Maine

NOTES RELATING TO STATION NO.

67

Notes

1917

1918

1919

1920

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1941

1942

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. ~~67~~ 68 - 1996
 Date, Nov. 14 1897
 Time of day, : of tide, 1/2 of Flood
 Locality, East Side of Sebastian River
 Exact position, Sebastian Pt Light
 S. 3/4 W. 1/2 mile mag.
 Depth, 6 fms.
 Nature of bottom, Rocky
 Dredging instrument used, 16 ft beam trawl
 Direction of drift, S. E 1/4 E; distance, 1/2 mile
 Temperature of air, 40° Fahr therm. No., 7
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.022 temp., 11.0° C
 " at depth of fathoms, "
 " at bottom, 1.022 11.0° C
 Number of salinometer, 704
 Barometer reading, 30.77
 State of sky, B
 Direction of wind, N W; force, 2
 Rain,
 Direction of surface current, No perceptible force
 " of bottom " force.
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr
 R. B. Barnard, USN
 Name and position of observer, J. H. H. H.
 Pharmacist, USN

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *69 - 1997*Date, *Nov 17 1897*Time of day, *1.30* : of tide, *1/4 h of flood*Locality, *Off West side of Long Island Sound*Exact position, *Lat. 40° 45' N. Long. 73° 45' W.*Depth, *5 fathoms*Nature of bottom, *Hard*Dredging instrument used, *Dredge*Direction of drift, *S. x E. 1/2 E.* : distance, *1/4 mile*Temperature of air, *54*

therm. No.,

" of surface water,

" at depth of *5* fathoms,

" at bottom,

Density at surface,

temp., *10.2°*" at depth of *5* fathoms,

" at bottom,

Number of salinometer, *7*Barometer reading, *30.20*State of sky, *Clear*Direction of wind, *W.* ; force, *2*Rain, *No*Direction of surface current, *N.* : force, *1/3*

" of bottom " : force,

Name of vessel, *U.S.S. L. Fish Hawk*Service to which attached, *Fish Commission*Name and rank of commanding officer, *Lt. Comm'r*Name and position of observer, *R. G. Sargent, U.S.N.*Name and position of observer, *R. G. Sargent*

NOTES RELATING TO STATION NO.

64

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 70 - 1998

Date, Nov. 17, 1898

Time of day, 1:30 : of tide, 1/2, 3/4 in of low

Locality, Harbor of New York

Exact position, East of Light

S. x E. 1/4 E. 2.37 miles away

Depth, 6 1/2 fathoms

Nature of bottom, sand

Dredging instrument used, dredge

Direction of drift, S. ; distance, 1/2 mile

Temperature of air, 44° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.025 temp., 10.2° C

" at depth of fathoms, "

" at bottom, 1.025 "

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, clear

Direction of wind, N. W. ; force, 1

Rain, none

Direction of surface current, W. ; force, 1/2 knot

" of bottom " ; force, "

Name of vessel, U.S.S. Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, Dr. J. B. ...

Name and position of observer, J. H. ...

70

[illegible]

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No.

Date.

Time of day.

: of tide,

Locality,

Exact position,

Depth.

Nature of bottom.

Dredging instrument used,

Direction of drift.

; distance,

Temperature of air.

therm. No.,

"

of surface water,

"

"

at depth of fathoms,

"

"

at bottom,

"

Density at surface.

temp.,

"

at depth of fathoms,

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at bottom,

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Number of salinometer.

Barometer reading.

State of sky,

Direction of wind.

; force,

Rain.

Direction of surface current.

; force,

"

of bottom

; force,

Name of vessel,

Service to which attached,

Name and rank of commanding officer,

Name and position of observer.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *2000*Date, *11/1/00*Time of day, *10:30*: of tide, *73^m of flood*Locality, *South of Satchum Pt.*Exact position, *4.5 miles S. of Satchum Pt.*Depth, *7.5 fathoms*Nature of bottom, *fine sand, shell*Dredging instrument used, *dredge*Direction of drift, *N. by W.* : distance, *1/2 mile*Temperature of air, *42* therm. No.,

" of surface water,

" at depth of fathoms,

" at bottom,

Density at surface, *1.022* temp., *11*

" at depth of fathoms,

" at bottom, *10.2*

Number of salinometer,

Barometer reading, *30.0*State of sky, *b, c, s*Direction of wind, *N. by E* : force,Rain, *0*Direction of surface current, *N. E.* : force, *1/2 knot*

" of bottom : force,

Name of vessel, *U.S.S. Fish Hawk*Service to which attached, *Fish Hawk*Name and rank of commanding officer, *LT. Comdr.*Name and position of observer, *W. H. C. Smith*

NOTES RELATING TO STATION NO.

Sporobolus

27th

1. *Sporobolus* *sp.*
1. *Sporobolus* *sp.*
Sporobolus *sp.*

Cydonia

Five

Rumex

Lea

Trachis

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No.

73

- 2001

$$\begin{array}{r} 11.27 \\ 7.68 \\ \hline \end{array}$$

Date,

Nov. 11

Time of day,

11:15

: of tide,

2 1/2 h. of flood

Locality,

Off Satchum Beach

Exact position,

Between S. & L. Light

Depth,

3.75 miles deep

Nature of bottom,

Fine sand & shells

Dredging instrument used,

Trawl

Direction of drift,

N. 10° W.

distance,

1/2 mile

Temperature of air,

44

therm. No.,

"

of surface water,

"

"

at depth of

fathoms,

"

"

at bottom,

"

Density at surface,

1.025

temp.,

11.1°

"

at depth of

fathoms,

"

"

at bottom,

1.025

11.1°

Number of salinometer,

7100

Barometer reading,

30.00

State of sky,

a T

Direction of wind,

; force,

2

Rain,

No

Direction of surface current,

No current

force,

Name of vessel,

U. S. F. C. S. Fish Hawk

Service to which attached,

Fish Commission

Name and rank of commanding officer,

R. M. DeCoursey

Name and position of observer,

H. H. H.

Pharmacist

NOTES RELATING TO STATION NO. 78

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *74 - 2002* *2002*
11537
302
 Date, *Nov 10*
 Time of day, *4:40*; of tide, *3 h. of flood*
 Locality, *Off Cape Cod Sound*
 Exact position, *Beaumont Point Light*
N. 10° E. 10 1/2 M. - S. 20° E. 10 M.
 Depth, *10 fms.*
 Nature of bottom, *fine sand*
 Dredging instrument used, *7 ft. beam trawl*
 Direction of drift, *N. x E.*; distance, *1/4 mile*
 Temperature of air, *45° F.* therm. No., *111*
 " of surface water, " " " " " "
 " at depth of fathoms, " " " "
 " at bottom, " " " "
 Density at surface, *1.022* temp., *11.5*
 " at depth of fathoms, " " " "
 " at bottom, *1.022* *11.7*
 Number of salinometer, *7104*
 Barometer reading, *30.1*
 State of sky, *b. c.*
 Direction of wind, *S. W.*; force, *3*
 Rain, *no*
 Direction of surface current, *no*; force, *no*
 " of bottom " force, " "
 Name of vessel, *U. S. Fish Com.*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *R. L. Hayward, Lt. Comdr.*
 Name and position of observer, *W. H. C. ...*

NOTES RELATING TO STATION NO. 7

P. Carolina

Memorandum

11

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

6002

Station No. *75 - 2003* $\frac{3.37}{3.75}$

Date. *Nov 14 91*

Time of day, *3* : of tide. *3/4* of flood

Locality, *Between Canton + Sabine Sound*

Exact position. *1/2 mile S. E. x E. 1/2 E. 1/2 S. E. 1/2 E.*

Depth, *18 fms*

Nature of bottom, *Muds*

Dredging instrument used, *Beam Trawl*

Direction of drift, *N. E. 1/4 S.* distance, *1/2 mile*

Temperature of air, *64* Fahr therm. No., *7397*

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, *1.022* temp., *11.8*

" at depth of fathoms, "

" at bottom, *1.023* *11.2*

Number of salinometer, *702*

Barometer reading, *30.21*

State of sky, *Cloudy*

Direction of wind, *N* ; force, *3*

Rain, *No*

Direction of surface current, *No current* force, *No*

" of bottom " : force, "

Name of vessel, *U. S. Fish Com. Fish Hawk*

Service to which attached, *U. S. Fish Com.*

Name and rank of commanding officer, *R. G. Cunningham, Master*

Name and position of observer, *W. H. C. ...*

NOTES RELATING TO STATION NO.

75

3/1/1911

1/1/1911

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6004 7.30 2.44 RECORD OF DREDGING.

TEMPERATURE AND DENSITY

Station No. *76 - 2006 - 75*

Date. *Mar. 12 - 1898*

Time of day, *10.30 AM*; of tide. *2nd ebb*

Locality, *Near Dutch Harbor*

Exact position, *Lat. 61° 10' N. Long. 159° 10' W.*

Depth, *7 to 10 fathoms*

Nature of bottom, *fine mud*

Dredging instrument used, *7' beam trawl*

Direction of drift, *0.2 E.*; distance, *1/2 mile*

Temperature of air, *54° F.*; therm. No., *7*

" of surface water, *54° F.*

" at depth of *10* fathoms, *54° F.*

" at bottom, *54° F.*

Density at surface, *1.022* temp., *11.2° C.*

" at depth of *10* fathoms, *11.2° C.*

" at bottom, *11.2° C.*

Number of salinometer, *2000*

Barometer reading, *30.04*

State of sky, *overcast, haze*

Direction of wind, *N.W.*; force, *1*

Rain, *No*

Direction of surface current, *S.W.*; force, *1 knot*

" of bottom, *fine mud*; force, *1 knot*

Name of vessel, *U.S. Fish Com. Steamer*

Service to which attached, *Fish Com.*

Name and rank of commanding officer, *John C. ...*

Name and position of observer, *John C. ...*

NOTES RELATING TO STATION NO. 76

- Alia* a small *Hydrobia*
- 2 *Gomacra*
- 3 *Hake* - squirrel
Scirpites
Panopeus number
- Caprellida flava*
- 6 *Mela pseudos*
- 1 *Ammon* case
- 7 *Halysid* from shore
Pelia munda few
- 5 *Small* *ascidia*
- 1 " *from* *in* *shell*
Membranipora
- Few Red shells of *Scutella* *ten*
- " " *schlo*
- Petrolofa*
- Conchus* several
- 1 small sea urchin
- 53 *Scaph* large 3 ft. in
- 1 *Pandalu*
- Lilia*
- Craugon* few
- Oyster* crab
- Stomatopoda* in tide flat
- For* *shells*

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 77 — 2005
 Date. Nov 18
 Time of day. 12 55 ; of tide. 3¹/₂ 20th of tide
 Locality. near Little Lake Harbor
 Exact position. Little Lake Harbor Light
E & R.
 Depth. 9 1/2 fathoms
 Nature of bottom. W. sand, red, muddy
 Dredging instrument used. 7 ft beam trawl
 Direction of drift. S. ; distance. 1/8 mile
 Temperature of air. 52nd day therm. No., 7397
 " of surface water. " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface. 1.022 temp., 10.8
 " at depth of fathoms, " "
 " at bottom, 1.022 11.0
 Number of salinometer. 7104
 Barometer reading. 30.7
 State of sky. clear
 Direction of wind. W. S. ; force. light
 Rain. No.
 Direction of surface current. D. O. W. ; force. 1 knot
 " of bottom " " ; force. " "
 Name of vessel. U. S.
 Service to which attached, U. S.
 Name and rank of commanding officer. John H. ...
 Name and position of observer. John H. ...

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *78 - 2006* *11, 23*
 Date, *Nov. 12 - 98* *21.4*
 Time of day, *11, 23* ; of tide, *H.L., of ebb*
 Locality, *Near Dutch Lake Harbor*
 Exact position, *Dutch Lake Harbor Light*
3 1/2 E 37 1/2 mile mag.
 Depth, *7 1/2 fathoms*
 Nature of bottom, *Rocky*
 Dredging instrument used, *7 ft dredge*
 Direction of drift, *S.* ; distance, *1/4 mile*
 Temperature of air, *52.0* ; therm. No., *7397*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.0216* temp., *10.6*
 " at depth of fathoms, " "
 " at bottom, *1.022* " *10.8*
 Number of salinometer, *7104*
 Barometer reading, *29.72*
 State of sky, *Overcast*
 Direction of wind, *S. W.* ; force, *light*
 Rain, *no*
 Direction of surface current, *S. W.* ; force, *1 knot*
 " of bottom " ; force, "
 Name of vessel, *U.S.F.C. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *1st Lieut.*
R. C. Carpenter
 Name and position of observer, *John J. ...*
Harvard University

NOTES RELATING TO STATION NO. 78

Small number of specimens.

7. *Chamaecyparis* *complanata* (L.) Link.

2 King 1. ch. 7-8. Ampleforth. Jan.

Has been ...

... *Indiv. 2* ...

Minimus agnitus Lake, Acadia

Robert Lewis R. Lewis

Cypripedium fl.

1 Spring, 1910.

Free - open market.

Microciena. 1891-1892.

~~Handwritten signature~~

numerous. Green. 9 Hybrids

Went up to the carrier

3 White Birch

2 Medical Exam Helen

1/2 1/2 1/2 1/2

Goodman 10-1-19

2001.11.11 King & Johnson

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

Ex. 2. $\frac{1}{2} \frac{d^2 y}{dx^2} + \frac{1}{2} \frac{dy}{dx} + y = 0$.

Amirul Huda Khan

For this purpose.

Indesin 2 1/2 in. 17 -

6007

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 79 - 2007
Date, April 11 - 1902
Time of day, 11:25 ; of tide, 2/3 ebb.
Locality, Narragansett Bay.
Exact position, South Wh. Light
P. S. W. 1.75 mile N.E.
Depth, 6 fathoms
Nature of bottom, fine sand & shells
Dredging instrument used, dredge
Direction of drift, S. by E. ; distance, 3/8 mile
Temperature of air, 51° Fahr therm. No. 7297
" of surface water, " "
" at depth of fathoms, " "
" at bottom, " "
Density at surface, 1.022 temp., 10.2°
" at depth of fathoms, " "
" at bottom, 1.024 " 10.5°
Number of salinometer, 7102
Barometer reading, 29.67
State of sky, B. with clouds
Direction of wind, S. by E. ; force, 1
Rain, 1.20
Direction of surface current, S. by E. ; force, 1/2 knot
" of bottom " ; force, "
Name of vessel, U. S. Fish Com. Fish Hawk
Service to which attached, Fish Commission
Name and rank of commanding officer, Z. S. Tanner
Name and position of observer, H. J. Johnson
Observer's name, Johnson

NOTES RELATING TO STATION NO. 79

1-18 June 1900

4 August 1900

5 March 1901

1 April 1901

1 October

~~1 October~~ shell

1 October

stricula

1 Symplocos

Symplocos

Cap. Vela formicata

Alouatta

Symplocos

Alouatta

Alouatta - 1 small

Alouatta

Alouatta

Alouatta

Alouatta

Alouatta in 1st

Alouatta

Alouatta

Alouatta

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

2008
1928
80

Station No. 80 — 2008

Date, Nov. 14, 1898.

Time of day, 1 hour : of tide, Low water

Locality, Narragansett Bay

Exact position, Conanicut N. of Light
2 1/2 N. E. x E 1/2 E 2 1/2 miles away

Depth, 5 fathoms

Nature of bottom, Rocky

Dredging instrument used, 7 ft beam trawl

Direction of drift, S. x W. : distance, 1/2 mile

Temperature of air, 52° Fahr therm. No., 7397

" of surface water, ..

" at depth of fathoms, ..

" at bottom, ..

Density at surface, 1.021 temp., 10.5°

" at depth of fathoms, ..

" at bottom, 1.021 + .. 10.7°

Number of salinometer, 7104

Barometer reading, 29.64

State of sky, Overcast

Direction of wind, N. x S. : force, 11

Rain, no.

Direction of surface current, 0 : force, 0

" of bottom : force,

Name of vessel, U. S. Fish Com. H. M. S. Fish Hawk

Service to which attached, U. S. Fish Com.

Name and rank of commanding officer, Lt. Comm'r

R. G. Thompson, U. S. Fish Com.

Name and position of observer, W. H. Coker

NOTES RELATING TO STATION NO. 82

or *Hemlock* *plumosa*

3 *Wormwood* *parviflora*

2 *Sparganium* *angustifolium*

4 *Rosa* *canadensis*

1 *Agrostis* *peruviana*

1 *Thalictrum* *flavum*

Chamaenerion *canadense*

Erigeron

Polygonum

Eichhornia

Thalictrum

Agrostis

Sagittaria

Chamaenerion

Erigeron

Polygonum

Thalictrum

Agrostis

Sagittaria

Chamaenerion

Erigeron

14 *Alnus* *incana*

Toyodendron

Juniperus *horizontalis*

Pinus *banksiana*

Quercus *alba*

Yucca *filifera*

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *81 — 2009*
 Date, *Dec 11*
 Time of day, *1.35 pm*; of tide, *1/2 of flood*
 Locality, *Harbor of an atoll*
 Exact position, *Conamint N. 1/2 N*
1 1/2 miles in
 Depth, *2 fathoms*
 Nature of bottom, *hard*
 Dredging instrument used, *dredge*
 Direction of drift, *SE*, distance, *3/8 mile*
 Temperature of air, *57° F*, therm. No., *7297*
 " of surface water, " " " " " "
 " at depth of fathoms, " " " "
 " at bottom, " " " "
 Density at surface, *1.021*, temp., *10.2*
 " at depth of fathoms, " " " "
 " at bottom, *1.021 + 10.7*
 Number of salinometer, *24.00*
 Barometer reading, *30.00*
 State of sky, *Blue*
 Direction of wind, *N.W.*, force, *2*
 Rain, *NO*
 Direction of surface current, *0*, force, *0*
 " of bottom " " " " " "
 Name of vessel, *U.S. Fish Com. Fish Hawk*
 Service to which attached, *Fish Com.*
 Name and rank of commanding officer, *H. S. ...*
 Name and position of observer, *H. S. ...*

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *52 2010*
 Date, *Nov. 14 - 98*
 Time of day, *2:05 pm*; of tide, *1/2 h. of flood*
 Locality, *Thames River at Tedy.*
 Exact position, *Gunpowder N. 1/2 E. Light*
S. E 1/2 E 1.25 mile. may.
 Depth, *3 3/4 fathoms*
 Nature of bottom, *hard*
 Dredging instrument used, *Beam trawl*
 Direction of drift, *N x E*; distance, *1/8 mile*
 Temperature of air, *50 Fahr* therm. No., *7597*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.020* temp., *10.0*
 " at depth of fathoms, " "
 " at bottom, *1.021* .. *18.1*
 Number of salinometer, *2102*
 Barometer reading, *29.64*
 State of sky, *0. to cast*
 Direction of wind, " ; force, "
 Rain, *nil*
 Direction of surface current, *71.6* ; force, *1/8 knot*
 " of bottom " ; force, "
 Name of vessel, *U.S.F.C. 3*
 Service to which attached, "
 Name and rank of commanding officer, *1st Lt. J. C. ...*
 Name and position of observer, *J. M. ...*

NOTES RELATING TO STATION NO. 82

1. *Passer domesticus*

1. *Quercus nigra*

4. *Ulmus americana*

1. *Phlox paniculata*

2. *Sciurus hudsonicus*

3. *Myrica carolinensis*

Asplenium platyneuron

Lycium americanum

Ulmus americana

Phlox carolinensis

Phlox carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

Myrica carolinensis

120 *Myrica carolinensis*

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *83 - 2011*
 Date. *Nov 12 - 98*
 Time of day. *7:15 am* of tide, *1st 20th of flood*
 Locality, *Near Cape Cod Light*
 Exact position, *Cape Cod Light S. 3 1/4 E. 1.50 miles away*
 Depth, *4 1/2 fathoms*
 Nature of bottom, *fine sand*
 Dredging instrument used, *7 foot beam trawl*
 Direction of drift, *N. 10 x N. 3/4 W.* distance, *1/2 mile*
 Temperature of air, *57* therm. No. *7597*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.0200* temp., *10.1°*
 " at depth of fathoms, " "
 " at bottom, *1.0224* " "
 Number of salinometer, *7*
 Barometer reading, *29.64*
 State of sky, *B. clear*
 Direction of wind, *7*; force, *2*
 Rain, *nil*
 Direction of surface current, *N. E*; force, *1/2*
 " of bottom " force,
 Name of vessel, *U. S. Fish Com. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *Lt. Comdr. R. S. Owen Jr.*
 Name and position of observer, *Pharmacist, U. S. Navy*

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *84 - 2012*
 Date, *Nov. 14, 98*
 Time of day, *7* : of tide, *13 1/2 of flood*
 Locality, *Narragansett Bay*
 Exact position, *Cahoon Pt N. Light*
S. 8 1/2 E. 2.5 miles mag.
 Depth, *20 fms.*
 Nature of bottom, *Muddy & shelly*
 Dredging instrument used, *7 ft beam trawl*
 Direction of drift, *N. 10 E. 1/2 E.* distance, *1/2 mile*
 Temperature of air, *52* therm. No., *7397*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.020* temp., *10*
 " at depth of fathoms, " "
 " at bottom, *1.021* " *10.5*
 Number of salinometer, *7104*
 Barometer reading, *29.75*
 State of sky, *Cloudy*
 Direction of wind, *W. S. W.* ; force, *3*
 Rain, *No*
 Direction of surface current, *N. E* : force, *1/2*
 " of bottom " : force, "
 Name of vessel, *U. S. Fish Hawk*
 Service to which attached, "
 Name and rank of commanding officer, *Lt. Comdr. R. G. Danforth, U. S. Navy*
 Name and position of observer, *W. H. C. Brown*

NOTES RELATING TO STATION NO.

14

1. *Mytilus*

2. *Mytilus*

3. *Mytilus*

4. *Mytilus*

5. *Mytilus*

6. *Mytilus*

7. *Mytilus*

8. *Mytilus*

9. *Mytilus*

10. *Mytilus*

11. *Mytilus*

12. *Mytilus*

13. *Mytilus*

14. *Mytilus*

15. *Mytilus*

16. *Mytilus*

17. *Mytilus*

18. *Mytilus*

19. *Mytilus*

20. *Mytilus*

21. *Mytilus*

22. *Mytilus*

23. *Mytilus*

24. *Mytilus*

25. *Mytilus*

26. *Mytilus*

27. *Mytilus*

28. *Mytilus*

29. *Mytilus*

30. *Mytilus*

31. *Mytilus*

32. *Mytilus*

33. *Mytilus*

34. *Mytilus*

35. *Mytilus*

36. *Mytilus*

37. *Mytilus*

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No., 85 — 2013
 Date, March 9
 Time of day, 7h : of tide, rh of flood
 Locality, Narragansett Bay
 Exact position, Narragansett Bay
N. H. E. 2.50 miles away
 Depth, 4 f
 Nature of bottom, fine sand
 Dredging instrument used, 3/4 m
 Direction of drift, N. 10 W distance, 3/4 mile
 Temperature of air, 50° therm. No., 7376
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.022 temp., 10.0°
 " at depth of fathoms, " "
 " at bottom, 1.025 9.2°
 Number of salinometer, 1770
 Barometer reading, 29.82
 State of sky, Partly cloudy
 Direction of wind, 10 : force, 3
 Rain, 0.0
 Direction of surface current, N. E : force, 1/2
 " of bottom " : force, "
 Name of vessel, U. S. Fish Com. Steamer
 Service to which attached, U. S. Fish Com.
 Name and rank of commanding officer, Lt. Comdr. J. H. Brown
 Name and position of observer, Wm. H. Brown

2014

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 86 - 2014
Date. Nov. 11. 14
Time of day. 4 am : of tide. 3/4 ebb
Locality, Nags Head Light
Exact position, 1.75 miles away
SxR.
Depth, 12 1/2 fathoms
Nature of bottom, 1 km
Dredging instrument used, 7 ft dredge
Direction of drift, S 45° E distance, 7/8 mile
Temperature of air, 48° Fahr therm. No.,
" of surface water, "
" at depth of fathoms, "
" at bottom, "
Density at surface, 1.022 temp., 11.2 C
" at depth of fathoms, "
" at bottom, 1.022 " 10.8 C
Number of salinometer,
Barometer reading, 29.5
State of sky, Overcast
Direction of wind, N.E. ; force, 4
Rain, no
Direction of surface current, N.E. : force, 1/2
" of bottom " : force,
Name of vessel, U.S.S. Fish Hawk
Service to which attached, U.S. Fish Commission
Name and rank of commanding officer, R. B. Smith, Lt. Comdr.
Name and position of observer, W. H. Hagen

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *89 - 2055*
 Date, *Nov. 14 - 18*
 Time of day, *4:20* ; of tide, *5' 1/2 h of flood*
 Locality, *Neponset River*
 Exact position, *Rice Island Light*
O. x E 1/4 E - 75 y north
 Depth, *14 fathoms*
 Nature of bottom, *Mud*
 Dredging instrument used, *Beam trawl*
 Direction of drift, *P. W. x S. 1/2 E* ; distance, *1/2 mile*
 Temperature of air, *51* Therm. No., *1104*
 " of surface water, " *51*
 " at depth of *14* fathoms, " *51*
 " at bottom, " *51*
 Density at surface, *1.0215* temp., *11.2*
 " at depth of *14* fathoms, " *10.7*
 " at bottom, *1.0215* " *10.7*
 Number of salinometer, *1104*
 Barometer reading, *29.65*
 State of sky, *Overcast*
 Direction of wind, *N. W.* ; force, *4*
 Rain, *No*
 Direction of surface current, *N. E.* ; force, *1/2*
 " at bottom, " ; force, "
 Name of vessel, *U. S. Fish Com. Steamer*
 Service to which attached, *Fish Com.*
 Name and rank of commanding officer, *Lt. J. S. Searcy*
P. S. Searcy, Jr., V. S. N.
 Name and position of observer, *Robert Henry*

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *88 - 2016*
 Date. *Nov. 12, 1898*
 Time of day. *4:15* : of tide. *3 3/4 h. of flood*
 Locality, *Narragansett Bay*
 Exact position, *Rice Field Light*
N.E. x 70. To rock way.
 Depth. *19 fathoms*
 Nature of bottom, *Hard*
 Dredging instrument used, *Long beam trawl*
 Direction of drift, *4 x 10. 1/4 1/2* : distance, *1/2 mile*
 Temperature of air, *46* Fahr therm. No., *7397*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.021* temp., *10.3*⁰
 " at depth of fathoms, " "
 " at bottom, *1.0214* " *10.6*
 Number of salinometer, *7104*
 Barometer reading, *29.65*
 State of sky, *Overcast*
 Direction of wind, *N.W.* ; force, *14*
 Rain, *no*
 Direction of surface current, *N.E.* : force, *1/2*
 " of bottom " : force, "
 Name of vessel, *U.S.S. Fish Hawk*
 Service to which attached, *U.S. Commission*
 Name and rank of commanding officer, *Lt. Comdr*
W. H. C. ...
 Name and position of observer, *J. H. ...*
...

NOTES RELATING TO STATION NO.

88

- The fauna of the
 1. *Erinacea*
Erinacea
Diaprosoma hydroid
 1. *Asarte* *undata*
L. bicornata with *L. angulata*
 The *Crangon* *tritica* shell.
 Small *cruciatulum* shells.
Spina ?
Ypon *hakea* *gemma*
L. litorea *mitis*
 1. *Ypon* *hakea* *gemma*
 1. *Ypon* *hakea* *gemma*
 1. *Ypon* *hakea* *gemma*

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *59 - 2017*Date, *Nov. 15 1906*Time of day, *9:40 AM*: of tide, *42^m of ebb.*Locality, *Off Ocean Point.*Exact position, *between Pt Light house*Depth, *8 fathoms*Nature of bottom, *very fine*Dredging instrument used, *Dredge*Direction of drift, *S.W. by S.*; distance, *3/4 mile*Temperature of air, *45*therm. No., *7397*

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, *1.0237*temp., *11*~~" at depth of fathoms, "~~~~" at bottom, "~~Number of salinometer, *7194*Barometer reading, *30.08*State of sky, *blue*Direction of wind, *N.W.*; force, *2*Rain, *No*Direction of surface current, *0*; force, *0*~~" of bottom, "~~Name of vessel, *U.S. Fish Hawk*Service to which attached, *Fish Commission*Name and rank of commanding officer, *Wm. H. Smith, Lt. Comdr.*Name and position of observer, *Wm. H. Smith, Lt. Comdr.*

NOTES RELATING TO STATION NO. 89.

Not collected any
water.

Some help in collecting
Plants. Very little
done in the garden and
by the stream.

Bottom very rocky, and dredge was
hauled within 100 yards of shore.

643

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 90 - 2078
Date, Nov. 15 - 91
Time of day, 9:10 am; of tide, 1/2 low water
Locality, East of Montauk Reef
Exact position, Montauk Reef Light
~~11.11.11~~ N 1/2 E, 7.5 mile
Depth, 10 fathoms
Nature of bottom, Fine gravel
Dredging instrument used, Dredge
Direction of drift, N. by E.; distance, 1/2 mile
Temperature of air, 40° Fahr. therm. No., 7397
" of surface water, "
" at depth of fathoms, "
" at bottom, "
Density at surface, 1.022 + temp., 17.0°
" at depth of fathoms, "
" at bottom, 1.024 " 11.3°
Number of salinometer, 7104
Barometer reading, 30.08
State of sky, Partly
Direction of wind, N. W.; force, 1
Rain, No
Direction of surface current, E; force, 1/2 knot
" of bottom " " " force, "
Name of vessel, U.S.S. Albatross
Service to which attached, U.S. Fish Commission
Name and rank of commanding officer, Z. Tanner, Lt. Comdr.
Name and position of observer, H. H. Henshaw

NOTES RELATING TO STATION NO.

1. *Quercus* *Hamamelidis* group
 2. *Quercus* *Hamamelidis* group
 3. *Quercus* *Hamamelidis* group
 4. *Quercus* *Hamamelidis* group
 5. *Quercus* *Hamamelidis* group
 6. *Quercus* *Hamamelidis* group
 7. *Quercus* *Hamamelidis* group
 8. *Quercus* *Hamamelidis* group
 9. *Quercus* *Hamamelidis* group
 10. *Quercus* *Hamamelidis* group

Bottom very rocky, new bridge
has to be built, probably in 1900
648

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 91 - 2019
Date. July 5. 1898
Time of day. 11:30 a.m. of tide. 1 1/2 hours of ebb
Locality. ~~Brenton's Reef~~
Exact position. Brenton's Reef Light Ship
N x N. 1/2 W. 1.50 miles away
Depth. 12 fathoms
Nature of bottom. Hard gravelly bottom
Dredging instrument used. Long line dredge
Direction of drift. N. by E. distance. 1/8 mile
Temperature of air. 40° Fahr therm. No., 7597
" of surface water, "
" at depth of fathoms, "
" at bottom, "
Density at surface. 1.0237 temp., 17.0° C
" at depth of fathoms, "
" at bottom. 1.0237 11.5° C
Number of salinometer. 7102
Barometer reading. 30.08
State of sky. Blue
Direction of wind. N.E. ; force, 3
Rain. No
Direction of surface current, E ; force, 1/2
" of bottom " ; force, "
Name of vessel. U.S.S. Albatross
Service to which attached. U.S. Fish Commission
Name and rank of commanding officer. Z. Tanner, Lt. Comdr.
Name and position of observer. J. H. Lawrence, Surgeon

NOTES RELATING TO STATION NO. 71

Red Pine, R. P. ...
Lepidoptera.

Trachea ...
Antenna ...
... trachea ...

...
Trachea ...
E. ...
...

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *92* *2520*
 Date, *Mar 25*
 Time of day, *9 50* : of tide, *16 500 ft. H.*
 Locality, *Near 17 miles Reef*
 Exact position, *Popotoni Reef Orship*
4.11. x 4.50 mile mag
 Depth, *15 1/2 fathoms*
 Nature of bottom,
 Dredging instrument used, *Trawl 9m*
 Direction of drift, *N. 1/2 W.* distance, *3/8 mile*
 Temperature of air, *71°* therm. No., *7517*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.0234* temp., *71.2°*
 " at depth of fathoms, " "
 " at bottom, *1.0235* " *71.2°*
 Number of salinometer, *7104*
 Barometer reading, *30.09*
 State of sky, *12 clear*
 Direction of wind, *N. W.* ; force, *2*
 Rain, *no*
 Direction of surface current, *4 E.* ; force, *1/2*
 " of bottom " ; force, "
 Name of vessel, *U.S.F.C. Fish Hawk*
 Service to which attached, *U.S. Fish Commission*
 Name and rank of commanding officer, *Lt. C. A. Smith*
1. J. J. Smith
 Name and position of observer, *J. J. Smith*

NOTES RELATING TO STATION NO.

1. in surface
2. smooth surface. & the
3. cells found in 7.
4. in the surface of 7.
5. smooth surface of 7.

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 93 — 2021
 Date, Nov. 15, 1917
 Time of day, 10:30 ^{am} of tide, 2 1/2 h. ebb
 Locality, Near butane to Sandy on bay
 Exact position, 1.37 mile N.E.
 Depth, 6 1/2 fathoms
 Nature of bottom, Dr. dg.
 Dredging instrument used, —
 Direction of drift, S. x W. ; distance, 1/4 mile
 Temperature of air, 47° F. therm. No., 777
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023 temp., 11.2
 " at depth of fathoms, " "
 " at bottom, " "
 Number of salinometer, 7102
 Barometer reading, 30.12
 State of sky, 1/2 clear
 Direction of wind, N. W. ; force, 5
 Rain, no
 Direction of surface current, S. x W. ; force, one knot
 " of bottom " ; force, "
 Name of vessel, U.S.S. Fish Hawk
 Service to which attached, U.S. Fish Com.
 Name and rank of commanding officer, W. H. C. ...
 Name and position of observer, A. H. ...

NOTES RELATING TO STATION NO.

92

Few larvae April
 May the
 Few large larvae
 in larvae
 written up in specimens
 from the
 in larvae
 in larvae
 I have many
 in larvae
 in larvae
 1 to 2, purple & red
 young adults
 in larvae
 1 to 2, purple & red
 in larvae
 in larvae
 in larvae
 in larvae
 in larvae

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *92 - 4022*
 Date, *Nov. 15 - 95*
 Time of day, *10* : of tide, *2¹/₂ ebb*
 Locality, *Western Passage of Maryland*
 Exact position, *Whale River Light*
S x N 5³/₄ - 50 mile mark
 Depth, *9³/₄ fathoms*
 Nature of bottom, *Hard mud*
 Dredging instrument used, *dredge*
 Direction of drift, *S. S. W.* : distance, *1/2 mile*
 Temperature of air, *47* therm. No., *7-77*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.023* temp., *12*
 " at depth of fathoms, " "
 " at bottom, *1.022* .. *11.5*
 Number of salinometer, *7104*
 Barometer reading, *30.12*
 State of sky, *Clear*
 Direction of wind, *N. E.* ; force, *5*
 Rain, *No*
 Direction of surface current, *P. N. W.* ; force, *1 knot*
 " of bottom " ; force, "
 Name of vessel, *U. S. Fish Com.*
 Service to which attached, *U. S. Fish Com.*
 Name and rank of commanding officer, *1st Lieut.*
R. J. ...
 Name and position of observer, *William ...*
Hamilton

NOTES RELATING TO STATION NO.

Shelly - many with same
 small, round, etc.
 Fossils, many, etc.
 Cancer, etc.
 Bucken, etc.
 Crustaceans, etc.
 Scaphopoda
 Fossils, etc.

6023

643

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *95 - 2023*
 Date, *Nov. 15 - 98*
 Time of day, *10.55* of tide, *2^h, 55^m ebb*
 Locality, *Near Whale Rock Light*
 Exact position, *Whale Rock Light*
N. E 3/4 E. 1.50 miles away
 Depth, *10*
 Nature of bottom, *fine sand*
 Dredging instrument used, *Dredge*
 Direction of drift, *Drifted 3/4 mile*
 Temperature of air, *44°* therm. No., *7197*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.023* temp., *11.2*
 " at depth of fathoms, " "
 " at bottom, " "
 Number of salinometer, *7102*
 Barometer reading, *30.12*
 State of sky, *b, c, c.*
 Direction of wind, *S. W.* : force, *5*
 Rain, *no*
 Direction of surface current, *1.40* : force, *1.1*
 " of bottom " : force "
 Name of vessel, *U. S. Fish Com.*
 Service to which attached, *Fish*
 Name and rank of commanding officer, *P. C.*
 Name and position of observer, *P. C.*

NOTES RELATING TO STATION NO. 95

1 specimen for
the 2 specimens above
the 1st
1 specimen

L. truncata
India
Hawaii
Shells of Macchia
India, L. truncata, etc.
in small amount

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *96 — 2020*
 Date, *Nov. 10 - 98*
 Time of day, *11 13* : of tide, *3/4 NE 1/4*
 Locality, *Near Mima Point Pier*
 Exact position, *Whale line light*
N. E x E 1/2 E — 1 mile mag.
 Depth, *7 1/2 fms*
 Nature of bottom, *fine*
 Dredging instrument used, *7 ft beam trawl*
 Direction of drift, *S. 76. E.* ; distance, *3/4 mile*
 Temperature of air, *45* therm. No., *797*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.022 +* temp., *11.2 C*
 " at depth of fathoms, " "
 " at bottom, *1.022 +* .. *11.6 C*
 Number of salinometer, *7104*
 Barometer reading, *29.73*
 State of sky, *1/3 fine*
 Direction of wind, *N. E.* ; force, *5*
 Rain, *no*
 Direction of surface current, *S. 1/2 E.* ; force, *1/4 knot*
 " of bottom " : force, "
 Name of vessel, *U. S. Fish Comm. Steamer*
 Service to which attached, *Fish Comm.*
 Name and rank of commanding officer, *John A. ...*
R. A. ...
 Name and position of observer, *John A. ...*

NOTES RELATING TO STATION NO.

96

Ten feet on
 a sand bar -
 12 miles from
 Elk River, North
 The E. Co. has a tube
 14 ft. in dia.
 The bar is a little
 in the water
 (Golden shell
 in sand bar)

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. 97 — 2025
 Date, Nov. 15, 98
 Time of day, 11:00 : of tide, 3 $\frac{1}{2}$ ebb
 Locality, Near Mansfield Pt.
 Exact position, Whale Rock Light
N. E $\frac{1}{2}$ E — 1.75 mile way
 Depth, 10 fms.
 Nature of bottom, Hard.
 Dredging instrument used, 7 ft. dredge
 Direction of drift, N. $3\frac{1}{4}$ E ; distance, $\frac{1}{4}$ mile
 Temperature of air, — therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.022 temp., 11.3° C
 " at depth of fathoms, " "
 " at bottom, 1.025 .. 12.1° C
 Number of salinometer, 7104
 Barometer reading, 30.1
 State of sky, Blue
 Direction of wind, — ; force, —
 Rain, No
 Direction of surface current, S. by E. ; force, $\frac{1}{2}$ knot
 " of bottom " ; force, "
 Name of vessel, U. S. Fish Com. Steamer
 Service to which attached, U. S. Fish Com.
 Name and rank of commanding officer, Wm. S. Smith, Jr., Master
 Name and position of observer, Wm. S. Smith, Jr.

NOTES RELATING TO STATION NO.

17

- 1. [illegible]
- 2. [illegible]
- 3. [illegible]
- 4. [illegible]
- 5. [illegible]
- 6. [illegible]
- 7. [illegible]
- 8. [illegible]
- 9. [illegible]
- 10. [illegible]
- 11. [illegible]
- 12. [illegible]
- 13. [illegible]
- 14. [illegible]
- 15. [illegible]
- 16. [illegible]
- 17. [illegible]

RECORD OF DREDGING.

TEMPERATURE AND DENSITY.

Station No. *78* *2026*
 Date, *7.11*
 Time of day, *11.35 am* : of tide, *6.30 pm* *ebb*
 Locality, *Off Pt. Judith, Alaska*
 Exact position, *Pt. Judith Light*
S. 20.1 W. — 3.7 mile away
 Depth, *10 fathoms*
 Nature of bottom, *Hard*
 Dredging instrument used, *Long beam trawl*
 Direction of drift, *S. 20.1 W.* ; distance, *1/2 mile*
 Temperature of air, *70°* therm. No., *111*
 " of surface water, " "
 " at depth of *10* fathoms, " "
 " at bottom, " "
 Density at surface, *1.023* temp., *11.6°*
 " at depth of *10* fathoms, " "
 " at bottom, *1.022* *12.8°*
 Number of salinometer, *704*
 Barometer reading, *30.12*
 State of sky, *B. C.*
 Direction of wind, *N. E.* ; force, *5*
 Rain, *No*
 Direction of surface current, *S. 20.1 W.* ; force, *1/2 mile*
 " of bottom, " ; force, "
 Name of vessel, *U. S. Fish Com. Steamer*
 Service to which attached, *U. S. Fish Com.*
 Name and rank of commanding officer, *W. H. Cope*
R. M. Thompson
 Name and position of observer, *W. H. Cope*

NOTES RELATING TO STATION NO. 98

- 1 *Foras* *rad.*
- 1 *Tridacna*
- 1 *18* *Spina* *culpan.*
- 1 *Mytilus* *frons*
- 1 *Mytilus* *frons*
- Drappasia*
- Tridacna* *bellum*
- 1 *Tridacna*
- 1 *Tridacna* *bellum*
- Tridacna* *bellum*
- 1 *Tridacna*
- 1 *Tridacna* *bellum*
- Tridacna* *bellum*
- 1 *Cydas* *dentata* *shell*
- Nassa* *vires* (?)

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

6027

Station No. 99 — 2027

Date, Mar 15 - 98

Time of day, 11.45 : of tide, 3 3/4 h of ebb

Locality, off Pt. Judith Neck

Exact position, Pt. Judith Light
S. W. 1/4 Pt. 2.75 miles mag

Depth, 10 1/2 fathoms

Nature of bottom, fine sand

Dredging instrument used, 3 pr beam trawl

Direction of drift, S. W. ; distance, 1/4 mile

Temperature of air, 48° F therm. No., 7397

" of surface water, ..

" at depth of .. fathoms, ..

" at bottom, ..

Density at surface, 1.023 temp., 11.6° C

~~" at depth of .. fathoms, ..~~

" at bottom, 1.023 .. 12.5° C

Number of salinometer, 7104

Barometer reading, 30.12

State of sky, cloudy

Direction of wind, N. E. ; force, 5

Rain, no

Direction of surface current, S. E. W. ; force, 1/2 knot

" of bottom " : force,

Name of vessel, U. S. Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. L. Carpenter

Name and position of observer, John
W. W.

NOTES RELATING TO STATION NO. 99

- Two small shells
 2 *Hydrobia ulva*
 1 *Forbesi* Star 2 in
 Two *Hydrobia*
 " *Hydrobia* shells
 2 *Castanea*
 Two shells 100. by *Edmond*
~~*Diaplasia*~~ = *Hydrobia*
 1 small white ribbed one
 1 *Yucca* *maesta*
 1 *Cyrtus* *dentata*
 1 *Nassa* *vinosa* (?)

To the north the light is usually
 put down in Delphinium or prob-
 ably Hydractinia or Hydra
 L. *Hydractinia* or *Hydra* *Vinosa*
Nassa *vinosa*? is *Forbesi* *dentata*

100
 6028

 100

Laysan 6' 1/2
 1000
 7 per 1000
 Temp. 45

Ben. surface 1000 Temp 11.5°
 1000 1000 14.00

1300 30.08

3 Emma
 8 square feet
 1 other water 7.1
 4 1 + 1/2 square feet
 1 brownish green
 1000 1000
 2. 1000 1000
 2. 1000 1000